i) genetic data of the selected animal, the genetic data including at least one of the data relating to genetic mapping, genetic background, or genetic screening related to the selected animal; and

ii) phenotype health assessment data of the selected animal;

b) using a computer program, combining the genetic data and the phenotype health assessment data to determine a relationship between the genetic data and the phenotype health assessment data;

c) selecting from b) at least one of:

i) the data relating to the temperament of the selected animal;

ii) the data relating to the lifespan of the selected animal; or

iii) a physiologic or genetic marker for autoimmune thyroiditis or thyroid dysfunction of the selected animal; and

d) analyzing the selection of the data of c), the analysis including an evaluation of health, disease or disorder probabilities to thereby enhance the quality of life or extend the lifespan of the selected animal, the selected animal being at least one of a selected animal family, selected animal breed, selected animal grouping, or selected animal species .

27.   (New)   A method of creating a computer database for facilitating a veterinary diagnostic determination of a health profile of an animal, the animal being non-livestock, comprising:

a) obtaining the

i) genetic data of the selected animal, the genetic data including at least one of the data relating to genetic mapping, genetic background, or genetic screening related to the selected animal; and

ii) phenotype health assessment data of the selected animal;

b) using a computer program for combining the genetic data and the phenotype health assessment data to determine a relationship between the genetic data and the phenotype health assessment data;

c) selecting from b) at least one of:

i) the data relating to the temperament of the selected animal;

ii) the data relating to the lifespan of the selected animal; or

iii) a physiologic or genetic marker for autoimmune thyroiditis or thyroid dysfunction of the selected animal; and

d) providing for an analysis of the data of c), the analysis including an evaluation of health, disease or disorder probabilities to thereby enhance the quality of life or extend the lifespan of the selected animal, the selected animal being at least one of a selected animal family, selected animal breed, selected animal grouping, or selected animal species .

28. (New) The method of claim 27, including permitting communication of an access request message from a remote user via a communications link, and the communications link being a computer network, including the Internet, the access request being for obtaining a report of the analysis from a central database processing resource.

29. (New) The method of claim 28, including the steps of communicating between a remote user and a central database processing resource through a computer network, including the Internet, and providing a report of the analysis to the remote user after charging for such report.

30. (New) A method of claim 26 comprising the step of analyzing biological laboratory test data from a bodily fluid or a tissue of the selected animal, such test data being related to a neurotransmitter activity of the animal.

31. (New) The method of claim 30, including obtaining data related to at least one of the value of serotonin, the gamma-aminobutyric acid (GABA), the glutamate, the dopamine, the glycine, the aspartate, the acetylcholine, the norepinephrine, the histamine, the substance P, the vasopressin, the vasoactive intestinal peptide, the neurotensin, or the other neuropeptides of the animal.

32. (New) The method of claim 30, comprising the step of storing the report in a central database processing resource, including permitting a remote user to access the central database
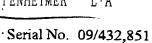
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processing resource via a communications link, the communications link being a computer network including the Internet, the access being for obtaining a report from the central database processing resource, the report including the health profile of that animal.

33. (New) The method of claim 26 including obtaining additionally at least one of :

    iv) the neurotransmitter data relating to the temperament of the animal;

    v) the neurotransmitter data relating to the longevity of the animal;

    vi) data assessing the bodily fluid and tissue immune stimulation reaction, neoplastic or paraneoplastic change, or cellular inflammatory response of the animal;

    vii) metabolic marker of the animal for inherited organ dysfunction or dysplasia;

    viii)   data assessing the presence of or susceptibility to mammary cancer of the animal;

    ix) data assessing the integrity of immune surveillance mechanisms of the animal; or

    x) data assessing the risk of inherited bleeding disease or disorder of the animal.

34. (New) A veterinary diagnostic method of health profiling a selected animal, the animal being non-livestock, to determine characteristics related to autoimmune thyroiditis or thyroid dysfunction of the selected animal to thereby enhance the quality of life or extend the lifespan of the selected animal comprising the steps of:

    a) analyzing biological laboratory test data from a bodily fluid or tissue of a selected animal, such test data being related to a physiologic or genetic marker for thyroiditis or thyroid dysfunction in the animal;

    b) analyzing, through a computer program, biological test data relating to a phenotypic health assessment of the selected animal in combination with genetic data related to that animal, the genetic data including at least one of the data relating to genetic mapping, genetic background, or genetic screening related to the animal thereby to obtain a relationship of the phenotypic health assessment data and genetic data; and

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c) developing an analysis based on the relationship of the data of a) and b), the analysis including an evaluation of the thyroiditis or thyroid dysfunction condition of the selected animal, the selected animal being at least one of a selected animal family, selected animal breed, selected animal grouping, or selected animal species.

35. (New) The method of claim 34, including obtaining data related to at least one of the value of a comprehensive thyroid autoantibody test profile, DNA fingerprint (the gene map), and markers for immunoglobulin receptors on B-cells, T-cell receptors, and protein products of the major histocompatibility complex (MHC) genes (Class I and II allellic HLA, DLA or equivalent antigenic specificities) of the animal.

36. (New) The method of claim 34, including reporting the analysis of the animal to a remote party through a communications network, selectively including the Internet .

37. (New) The method of claim 28, including the steps of communicating between the remote user and the central database processing resource through the computer network, including the Internet, and providing the report to the remote user after charging for such report.

38. (New) A veterinary diagnostic method of health profiling a selected subject animal to enhance the quality of life or extend the lifespan of the selected animal, the animal being non-livestock, comprising:

a) obtaining the

i) genetic data of the selected animal, the genetic data including at least one of the data relating to genetic mapping, genetic background, or genetic screening related to the selected animal; and

ii) phenotype health assessment data of the selected animal;

b) using a computer program, combining the genetic data and the phenotype health assessment data to determine a relationship between the genetic data and the phenotype health assessment data;

c) selecting from b) at least one of:

i) the data relating to the temperament of the selected animal;

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ii) the data relating to the lifespan of the selected animal; or

iii) a physiologic or genetic marker for autoimmune thyroiditis or thyroid dysfunction of the selected animal; and

d) analyzing the selection of the data of c), the analysis including an evaluation of health, disease or disorder probabilities and the nutrition of the selected animal, the selected animal being at least one of a selected animal family, selected animal breed, selected animal grouping, or selected animal species .

39.   (New)   A method of creating a computer database for facilitating a veterinary diagnostic determination of a health profile of an animal, the animal being non-livestock, comprising:

a) obtaining the

i) genetic data of the selected animal, the genetic data including at least one of the data relating to genetic mapping, genetic background, or genetic screening related to the selected animal; and

ii) phenotype health assessment data of the selected animal;

b) using a computer program for combining the genetic data and the phenotype health assessment data to determine a relationship between the genetic data and the phenotype health assessment data;

c) selecting from b) at least one of:

i) the data relating to the temperament of the selected animal;

ii) the data relating to the lifespan of the selected animal; or

iii) a physiologic or genetic marker for autoimmune thyroiditis or thyroid dysfunction of the selected animal; and

d) providing for an analysis of the data of c), the analysis including an evaluation of health, disease or disorder probabilities and the nutrition of the selected animal, the selected animal being at least one of a selected animal family, selected animal breed, selected animal grouping, or selected animal species .

40. (New) A veterinary diagnostic method of health profiling a selected animal, the animal being non-livestock, to determine characteristics related to autoimmune thyroiditis or thyroid dysfunction of the selected animal to thereby enhance the quality of life or extend the lifespan of the selected animal comprising the steps of:

a)   analyzing biological laboratory test data from a bodily fluid or tissue of a selected animal, such test data being related to a physiologic or genetic marker for thyroiditis or thyroid dysfunction in the animal;

b)   analyzing, through a computer program, biological test data relating to a phenotypic health assessment of the selected animal in combination with genetic data related to that animal, the genetic data including at least one of the data relating to genetic mapping, genetic background, or genetic screening related to the animal thereby to obtain a relationship of the phenotypic health assessment data and genetic data;

c)   developing a analysis based on the correlation of the data of a) and b), the analysis including an evaluation of the thyroiditis or thyroid dysfunction condition of the selected animal, the selected animal being at least one of a selected animal family, selected animal breed, selected animal grouping, or selected animal species; and

d)   determining a relationship from the analysis between health, disease or disorder probabilities and the nutrition of the selected animal.

41. (New) A method as claimed in claim 26 including using the combination of data to create a computer driven statistical model for predicting the occurrence of disease, quality of life or a lifespan of an animal. ~~disease, quality of life and the lifespan of the animal.~~

42. (New) A method as claimed in claim 27 including using the combination of data to create a computer driven statistical model for predicting the occurrence of disease, quality of life or a lifespan of an animal.

43. (New) A method as claimed in claim 34 including using the combination of data to create a computer driven statistical model for predicting the occurrence of disease, quality of life or a lifespan of an animal.

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44. (New) A method as claimed in claim 38 including using the combination of data to create a computer driven statistical model for predicting the occurrence of disease, quality of life or a lifespan of an animal and the nutrition of the animal.

45. (New) A method as claimed in claim 39 including using the combination of data to create a computer driven statistical model for predicting the occurrence of disease, quality of life or a lifespan of an animal and the nutrition of the animal.

46. (New) A method as claimed in claim 40 including using the combination of data to create a computer driven statistical model for predicting the occurrence of disease, quality of life or a lifespan of an animal and the nutrition of the animal.

47. (New) The method of claim 38, including permitting communication of an access request message from a remote user via a communications link, and the communications link being a computer network, ~~including the Internet,~~ the access request being for obtaining a report of the analysis.

48. (New) The method of claim 39, including permitting communication of an access request message from a remote user via a communications link, and the communications link being a computer network, including the Internet, the access request being for obtaining a report of the analysis from a central database processing resource.

49. (New) The method of claim 40, including permitting communication of an access request message from a remote user via a communications link, and the communications link being a computer network, including the Internet, the access request being for obtaining a report of the analysis.

50. (New) A method as claimed in claim 26 wherein the genetic data is cross-related to the phenotypic data.

51. (New) A method as claimed in claim 27 wherein the genetic data is cross-related to the phenotypic data.

52. (New) A method as claimed in claim 34 wherein the genetic data is cross-related to the phenotypic data.

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